



**University of
Zurich^{UZH}**

**Zurich Open Repository and
Archive**

University of Zurich
University Library
Strickhofstrasse 39
CH-8057 Zurich
www.zora.uzh.ch

Year: 2012

Letter on Shahidi et al. (2011): “Laughter Yoga versus group exercise program in elderly depressed women: A randomized controlled trial” I - First things first! Caveats in research on “Laughter Yoga”

Proyer, Rene T ; Ruch, Willibald ; Rodden, F A

DOI: <https://doi.org/10.1002/gps.2793>

Posted at the Zurich Open Repository and Archive, University of Zurich

ZORA URL: <https://doi.org/10.5167/uzh-50051>

Journal Article

Accepted Version

Originally published at:

Proyer, Rene T; Ruch, Willibald; Rodden, F A (2012). Letter on Shahidi et al. (2011): “Laughter Yoga versus group exercise program in elderly depressed women: A randomized controlled trial” I - First things first! Caveats in research on “Laughter Yoga”. *International Journal of Geriatric Psychiatry*, 27(8):873-874.

DOI: <https://doi.org/10.1002/gps.2793>

Letter to editor Shahidi M, Mojtabeh A, Modabbernia A., *et al.* 2011. Laughter Yoga versus group exercise program in elderly depressed women: A randomized controlled trial. *Int J Geriatr Psychiatr* **26**: 322-327. *First things first! Caveats in research on "Laughter Yoga"*

René T. Proyer¹, Willibald Ruch¹, Frank A. Rodden^{2,3}

¹University of Zurich

^{2,3}University of Tübingen, Christian Hospital of Quakenbrück, Germany

We read the paper by Shahidi and colleagues (2011) with great interest as there is much discussion about the value of "Laughter Yoga" among scholars in the field of humor research. Studies evaluating laughter interventions are sparse and therefore highly welcome. The present study, however, leaves many questions open and we have the impression that it starts from premises that cannot be backed up by the current state of the art in the field. Thus clarification is needed.

One main point of criticism is that the paper contains claims that are not substantiated by literature; e.g., the authors argue that "Its [Laughter Yoga's] effect on mental and physical aspects of healthy individuals was shown to be beneficial" (abstract). In fact, there is no scientific literature available to substantiate this claim. The authors themselves refer to two sources: (a) Nagendra *et al.* (2007), published at "Laughter Yoga International", which appears to be a website dedicated to the promotion of Laughter Yoga; and (b) Beckman *et al.* (2007), which is based on 33 participants which has neither a control nor a placebo-group.

A literature search on "Laughter Yoga" (and variants; ISI Web of Knowledge, PubMed June 1st, 2011) yielded two hits: Shahidi *et al.* and Sharma *et al.* (2007), who report two case studies on a rare medical condition involving abdominal pathology. The elderly patients attended yoga or laughter therapy sessions and developed symptoms later on. This points towards potential problems in the application of such programs; as does other literature suggesting that people differ in the way they appreciate laughter (Ruch & Proyer, 2008) and that morphologically different forms of laughter (Duchenne-display vs. non-Duchenne display; Ruch & Ekman, 2001) need to be distinguished. Unfortunately, Shahidi *et al.* miss much of the literature that has been generated in the field.

The *scientific* basis of Laughter Yoga is not well documented and convincing evidence of positive effects are not available (in scientific literature). Shahidi *et al.* do not present any theoretical rationale on why Laughter Yoga should have beneficial effects. The crucial question is: "Why should laughing for no reason enhance life satisfaction and lower levels of depression?" The authors fail to convincingly argue why this may be the case. We think that any research pursuit is hindered if not following a clear rationale. Unfortunately, it seems as if the authors have no explanation for their findings either. Rather there is slightly confusing discussion of effects of *humor*, which (as the authors acknowledge) cannot be used synonymously with laughter. Before such a study (i.e., *application*) can be conducted, more research in the basic field is needed. Underlying mechanisms and processes need to be described and models need to be derived that can be tested. References to popular books are not sufficient as theoretical foundation.

A further problem may be the structure of the program employed. Step 1 in the procedure was, "A brief talk about something delightful ... having positive attitudes to everyday life affairs ...etc." Doing this *alone* probably elicits *positive emotions*. Much research on positive emotions has been conducted indicating that these, in fact, bear a great potential of enhancing well-being. Thus, positive effects of the program could also be assigned to other factors such as eliciting positive emotions, or enabling positive relationships

in a group activity, or positive self-reinforcement (as in the final step shouting: “I am the happiest person in the world”).

It can only be reiterated that the design used by Shahidi and colleagues (2011) does not allow for the measurement of the effect of *laughing for no reason*. What their study measures is the effect of a complex mixture of positive-emotion-inducing factors - of which Laughter Yoga is only one. A more convincing study would include mood measures before and after an intervention and would also consider the duration of genuine vs. non genuine laughter as a moderator of the effects.

Overall, the study leaves more questions open than it answers and without more basic research in the field, there cannot be any advancement in the area. Shahidi *et al.* (2011) should be applauded, however, if they stimulate research in this field among readers of the International Journal of Geriatric Psychiatry.

References

Beckman H, Regier N, Young J. 2007. Effect of workplace laughter groups on personal efficacy beliefs. *J Prim Prev* **28**: 167-182.

Nagendra HR, Chaya MS, Nagarathna R, *et al.* 2007. Efficacy of laughter yoga on IT professionals to overcome professional stress. *Laughter yoga international*.

Ruch W, Ekman P. 2001. The expressive pattern of laughter. In *Emotion, qualia and consciousness*, Kaszniak A. (ed). World Scientific Publisher: Tokyo.

Ruch W, Proyer RT. 2008. The fear of being laughed at: Individual and group differences in gelotophobia. *Humor* **21**: 47-67.

Sharma H, Singh N, Bhandari, S, *et al.* 2007. Rectus sheath haematoma: a rare presentation of non-contact strenuous exercises. *Br J Sports Med* **41**: 688-690.